CLAIMS

What is claimed is:

1. A microelectronic transport tray for containing and transporting microelectronic components, the tray comprising:

a plate supported by a plate surround;

the plate including form fitting cavities arranged in a matrix defined therein to contain microelectronic components; and

a resilient sheet adjacent the bottom side of the plate such that when two said microelectronics transport trays are stacked the resilient sheet secures the microelectronic components resiliently therebetween and in the form fitting cavities.

2. The microelectronic transport tray as claimed in Claim 1, in which the resilient sheet comprises a material chosen from a group consisting of memory foam, an air bag, an elastomeric polymer, polyethylene foam and static dissipative cross-linked polyethylene foam.

3. The microelectronic transport tray as claimed in Claim 1, in which the resilient sheet is secured to the bottom of the plate.

4. The microelectronic transport tray as claimed in Claim 3, in which the resilient sheet is secured to the bottom of the plate by an adhesive.

5. The microelectronic transport tray as claimed in Claim 3, in which the resilient sheet is mechanically secured to the bottom of the plate.

6. The microelectronic transport tray as claimed in Claim 4, in which the adhesive is selected from a group consisting of a contact adhesive, a low ionic double-faced adhesive tape, a heat sensitive adhesive and a hot melt adhesive.

7. The microelectronic transport tray as claimed in Claim 1, in which the resilient sheet is compressed when the when two said microelectronics transport trays are stacked.

8. The microelectronic transport tray as claimed in Claim 7, in which the resilient sheet is compressed between about five percent and twenty five percent of its thickness.

9. The microelectronic transport tray as claimed in Claim 7, in which the resilient sheet is compressed between about 0.01 inch and 0.05 inch.

10. The microelectronic transport tray as claimed in Claim 7, in which the resilient layer comprises a static dissipative cross-linked polyethylene foam.

11. A method of protecting microelectronic components comprising the steps of:

placing the microelectronic components into form fitting cavities in a first chip tray;

placing a second chip tray or a chip tray cover on top of the first chip tray; and

interposing a resilient sheet between the second chip tray or the chip tray cover and the first chip tray such that the resilient sheet is compressed between the second chip tray or the chip tray cover and the first chip tray thus holding the microelectronic components in the form fitting cavities.

12. The method as claimed in Claim 11, further comprising the steps of:

selecting the second chip tray or the chip tray cover and the first chip tray so that there is a predetermined space between the second chip tray or the chip tray cover and the first chip tray; and

selecting the resilient sheet to have a thickness slightly greater than the space between the second chip tray or the chip tray cover and the first chip tray.

13. The method as claimed in Claim 11, further comprising the step of selecting the resilient layer from a group consisting of memory foam, an air bag, an elastomeric polymer, polyethylene foam and static dissipative cross-linked polyethylene foam.

14. The method as claimed in Claim 11, further comprising the step of securing the resilient sheet to a bottom of the second chip tray or the chip tray cover.

15. The method as claimed in Claim 11, further comprising the step of securing the resilient sheet to a bottom of the second chip tray or the chip tray cover with an adhesive.

16. The method as claimed in Claim 11, further comprising the step of securing the resilient sheet to a bottom of the second chip tray or the chip tray cover mechanically.

17. The method as claimed in Claim 15, further comprising the step of selecting the adhesive from a group consisting of a contact adhesive, a low ionic double-faced adhesive tape, a heat sensitive adhesive and a hot melt adhesive.

18. The method as claimed in Claim 11, further comprising the step of compressing the resilient sheet between about five percent and twenty five percent of its thickness.

19. The method as claimed in Claim 11, further comprising the step of compressing the resilient sheet between about 0.01 inch and about 0.05 inch.

20. The method as claimed in Claim 11, further comprising the step of selecting the resilient layer so that it comprises a static dissipative cross-linked polyethylene foam.

21. A microelectronics transport tray as depicted and described herein.

22. A method of containing, protecting and transporting microelectronic components as depicted and described herein.